

REMARKS

Claims 1-86 are now pending in the application. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

Applicants would like to thank the Examiners for courtesy extended during the personal interview on July 7, 2005.

The Examiner objected to Claims 21, 25, 28, 49, 54, 78 and 83. Applicants have defined both "S" and "M" valuables in Claims 21, 25, 49, 54, 78 and 83. In Claim 28, "that" was amended to "than". None of these amendments are narrowing amendments. Therefore these objections are now moot.

REJECTION UNDER 35 U.S.C. § 103

Claims 1, 20, 26, 27, 28, 29, 48, 55, 56, 57, 58, 77, 84, 85, and 86 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Simmons et al. (U.S. Pat. Publication 2002/0094048).

With respect to Claim 1, Simmons et al. does not show, teach or suggest a bit comparing circuit that compares the sync mark bit-by-bit to the incoming bitstream in a first coding domain if channel irregularities do not exist and a symbol comparing circuit that compares the sync mark symbol-by-symbol to the incoming bitstream in a second coding domain that is different than the first coding domain if the channel irregularities do exist.

At best, Simmons et al. discloses using bit-by-bit or symbol-by-symbol in high signal to noise ratio (SNR) channels or waveform correlation in low SNR channels.

Simmons et al. does not explicitly disclose switching between the bit-by-bit or symbol-by-symbol and waveform correlation in a single system based on detected channel irregularities. Furthermore, Simmons et al. does not show, teach or suggest using different coding domains in bit-by-bit and symbol-by-symbol domains. For example, in some implementations, bit-by-bit comparisons are performed in NRZ coding domain and symbol-by-symbol are performed in INRZI coding domain, although other coding domains will also work.

Applicants believe that Claim 1 is allowable for at least the foregoing reasons. Claims 29 and 58 are allowable for at least similar reasons. The remaining claims are directly or indirectly dependent upon Claims 1, 29 and 58 and are allowable for at least similar reasons.

ALLOWABLE SUBJECT MATTER

The Examiner states that claims 19, 21, 23, 24, 47, 49, 51, 52, 53, 76, 78, and 80-82 would be allowable if rewritten in independent form. Accordingly, Applicants have amended claims 19, 21, 23, 24, 47, 49, 51, 52, 53, 76, 78, and 80-82 to include the limitations of the base claim and any intervening claims. Therefore, claims 19, 21, 23, 24, 47, 49, 51, 52, 53, 76, 78, and 80-82 should now be in condition for allowance.

CONCLUSION

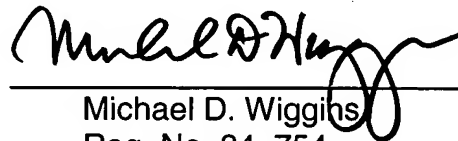
It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is

believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

Dated: August 2, 2005

By:



Michael D. Wiggins
Reg. No. 34, 754

HARNESS, DICKEY & PIERCE, P.L.C.
P.O. Box 828
Bloomfield Hills, Michigan 48303
(248) 641-1600

MDW/lmt